Research Associates, Inc. (NERA), focuses on major components of the price cap formula, especially productivity and the X-Factor.[175] The study concludes that an appropriate X-Factor is the historical differential between the annual TFP growth of the regulated LEC industry and that of the U.S. economy. It thus supports the methodology of the Christensen Study.[176]

110. Central to NERA's interpretation of the X-Factor is the issue of input price changes. According to NERA, the GNP-PI inflation measure in the price cap formula measures output price changes for the U.S. economy as a whole, not changes in LEC input prices. If LEC input price growth rates differ from those in the U.S. economy, that difference is included as part of the productivity offset."'

111. To shed light on the relationship between telecommunications input price growth and national input price growth, NERA compared data for two periods: 1951-87 and 1984-90. For the first period, NERA relies on a TFP study conducted by L.R. Christensen which is said to show that long run input price growth for the United States has approximated telecommunications input cost inflation, differing by only 0.30 percent. NERA states that there was no statistically significant difference between the telecommunications industry and U.S. input price growth in the study. For the second period, NERA again relies on a Christensen Study for 1984-90. For the period of this study, NERA states that it finds no statistically significant difference between industry and U.S. input price growth. NERA concludes that the X-Factor should be the simple differential between the annual TFP growth of the regulated firm and the U.S. economy, and that there is no reliable evidence that input prices have grown -- or will grow -- at different rates for the telecommunications industry and the United States as a whole."*

ii. Criticisms of and Proposed Revisions to the Initial USTA TFP Model

112. Ad Hoc asserts that to mirror the efficiency incentives found in competitive markets, the Commission must include a representation of all the components of a competitive marketplace in its X-Factor formula and that the USTA proposal

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[175] See NERA Study, USTA Comments, Attachment 5.

[176] Id. at ii.

[177] Id. at 11, 14. NERA's calculations are discussed in more detail in an Appendix to this Order.

[178] Id. at 16.

fails to do so.[179] Ad Hoc argues that calculation of the X-Factor must include: (1) the historic post-divestiture LEC productivity growth rate; (2) a LEC input price differential reflecting that LEC input prices are rising at a slower rate than the GNP-PI; and (3) the appropriate consumer productivity dividend.[180] In particular, based on data taken from the Christensen Study, Ad Hoc concludes that the price of labor and the price of materials increased at a rate of 3.7 percent from 1984 to 1992. Again based on Christensen Study data, Ad Hoc concludes that the price of capital declined by 1.9 percent during that period. Ad Hoc concludes that LEC aggregate input prices grew at 1.1 percent, or 2.6 percent slower than GDP.[181] As a result, Ad Hoc computes an X-Factor of 5.7 as follows: 2.6 percent productivity growth rate, plus 2.6 percent input price differential, plus a 0.5 percent consumer productivity dividend.'**

113. AT&T also contends that, to derive a TFP-based measure that corresponds to the price cap X-Factor, TFP differentials must be adjusted for the difference between GNP-PI and actual input price growths. AT&T asserts that such an adjustment adds 3.5 percent to the productivity offset calculated by the Christensen Study, and results in an implied X-Factor of a least 5.2 percent.[183]

114. MCI and AT&T challenge the use of the Christensen Study on the grounds that the outputs that the Christensen Study examines are not equivalent to the outputs that the LEC price cap plan covers.'" They state that, in addition to the interstate access services which are capped by the plan, the Christensen Study includes four services that are not capped by the plan: local service, intrastate access, long distance service, and miscellaneous services. AT&T contends that this reliance on the LECs' data at the total company level, rather than on data specific to interstate access services, necessarily understates the LECs' interstate access TFP growth because growth in "high markup" services, such as access, contributes more to TFP growth than growth in the "low markup" services included in the total

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[179] Ad Hoc Reply at 30-31 and Attachment A (ETI Study).

[180] Ad Hoc Reply at 25, 31.

[181] Ad Hoc Reply at 27 and Attachment A at 10-12.

[182] Ad Hoc Reply at 31.

[183] AT&T Reply at 28-29.

[184] MCI Reply at 26-29; AT&T Reply at 30.

company level data."[185]

115. Concerning proposals to adjust its TFP study for input price differentials, USTA argues that NERA's study shows that there is no statistically significant difference between long-term LEC industry and U.S. input price growth.[186] USTA claims that Ad Hoc ignores studies that contradict its assertion regarding the input price differential, and that the extreme fluctuation in input price series militates against using data from only a few years.[187]

116. In an affidavit submitted as an ex parte statement on February 1, 1995, USTA claims there is no evidence of any significant difference in growth rates for LEC input prices and economy-wide input prices from 1949 to 1992.[188] Although USTA notes that there has been volatility in the input price differentials for both labor and capital since about 1984, USTA asserts that these are short-term fluctuations and not indications of a change in long-term trends.[189] With respect to the cost of capital, USTA states that the relevant measure is the opportunity cost of capital.[190] USTA recognizes that there appears to be a large difference in LEC and economy-wide opportunity cost of capital. USTA states, however, that its methodology for measuring LEC opportunity cost of capital and its methodology for measuring economy-wide opportunity cost of

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[185] AT&T Reply at 30; see also MCI Reply at 29 (the annual average growth rate for interstate access services is 6.4 percent, as opposed to the 3.5 percent growth that the Christensen Study computed for all LEC services).

[186] USTA Reply at 55; see also US West Reply at 26 (even if LEC input prices were growing at a slower rate than the GNP-PI, it would be inconsistent with price caps to incorporate such an adjustment because it would constitute a general exogenous adjustment for changes in the prices of LEC inputs).

[187] USTA Reply, Attachment 4 at 23-28.

[188] Affidavit of Dr. Laurits R. Christensen, attached to Letter from Frank McKennedy, USTA, to William F. Caton, Acting Secretary, Feb. 1, 1995, at 5-6 (Christensen Aff.) .

[189] Christensen Aff. at 6-10.

[190] USTA defines opportunity cost of capital as the foregone returns that could have been earned if the funds used to acquire the capital goods were invested somewhere else. Christensen Aff. at 7.

capital are not directly comparable.[191]

b. USTA's Proposal of January 18, 1995

117. On January 18, 1995, USTA submitted a substantial revision to its proposal. USTA recommends, as an option to the current 3.3 percent X-Factor, allowing a LEC to base its X-Factor on TFP growth differential for all LECs relative to economy-wide TFP growth. This TFP-based X-Factor would be recalculated annually, and set equal to the average TFP differential of five previous years.[192] In addition to this "five-year moving average," USTA would include a "two-year lag,"[193] so that data from the third to the seventh years prior to the annual tariff filing would be included in the moving average, but data from the two years immediately preceding the annual tariff filing would not. USTA argues that this two-year lag is necessary to ensure that the Bureau of Labor Statistics (BLS) has published the information necessary to calculate TFP.[194]

118. USTA maintains that the data needed to calculate the TFP differential is available from public sources and would be easy to update annually.[195] According to USTA, a five-year

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[191] USTA equates the LECs' opportunity cost of capital to Moody's composite yield for public utility bonds. Christensen Aff. at 7. USTA then measures economy-wide opportunity cost of capital implicitly, by subtracting from GDP labor costs, depreciation, taxes, inflation, and the current cost of net capital stock. Id. at 7-8 and Attachment F. USTA notes that its measure of LEC opportunity costs of capital growth rate has declined from 14.03 percent in 1984 to 7.45 percent in 1993, while its implicit measure of economy-wide opportunity costs of capital has ranged from 12.39 percent to 14.65 percent during this period. Id. at 7-8 and Attachment F. USTA contends that the interest rates it used to measure LEC opportunity cost of capital are unlikely to continue to decline, and have increased to 9.0 percent recently, and that its methodologies for measuring LEC opportunity cost of capital and economy-wide opportunity cost of capital do not yield comparable results. For these reasons, USTA asserts that there is insufficient data to conclude that LEC input prices will continue to be lower than economy-wide input prices. Id. at 9-11.

[192] January 18 Letter at 2, and Attachment 1 at 1-2.

[193] Id.

[194] January 18 Letter, Attachment 1 at 3.

[195] January 18 Letter, Attachment 1 at 1.

period would smooth out short-term fluctuations in productivity.'% USTA asserts that the Interstate Commerce Commission (ICC) uses a five-year moving average with a two-year lag in its railroad regulation.[197] USTA calculates that the LEC TFP differential five-year moving averages in 1990, 1991, and 1992 have been 2.5 percent or 2.6 percent.[198]

119. According to USTA, a moving average X-Factor eliminates the need for a CPD because productivity gains are reflected in the price cap formula.[199] USTA recommends phasing the CPD down, rather than eliminating it immediately, to provide benefits to consumers during the first two years that the lagged moving average takes effect. USTA would set the CPD at 1 percent in the first year, 0.5 percent in the second year, and 0.25 percent in the third year.[200] USTA also would lower LEC price cap indexes by 1 percent immediately to pass on benefits to consumers.[201]

120. There are a number of other elements in USTA's revised proposal, such as eiimination of the sharing and low-end adjustment mechanisms, narrowing the exogenous cost rules, and replacing Part 69 with more flexible rate structure rules. We discuss these aspects of USTA's revised proposal in other sections in this Order.

121. A number of LECs assert that use of a "moving average" would eliminate much of the controversy regarding whether the X-Factor is calculated properly.'"* SWB argues that a moving average would permit innovators to benefit from their increased productivity until competitors learn to match those results, and thus matches the effects of competition.[203] SWB supports basing

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196 Januarv 18 Letter, Attachment 1 at 2-3.

197 Januarv 18 Letter, Attachment 1 at 3.

198 Januarv 18 Letter, Attachment 1 at 5, Table 2.

199 Januarv 18 Letter at 1.

200 Januarv 18 Letter at 3.

201 Januarv 18 Letter at 3-4.

202 SWB January 18 Comments at 4-5; US West January 18 Comments at 2; Bell Atlantic January 18 Comments at 3-5. See also GSA January 18 Comments at 2-3 (supports moving average, but recommends against using USTA's method of calculating the X-Factor).

203 SWB January 18 Comments at 7-8.

the moving average-on a five year period, arguing that five years is the minimum length of time necessary to reflect the time required to deploy equipment throughout a LEC's network.[204] According to SWB, a high productivity offset of 5.7 percent, as recommended by CARE, would create large price decreases. SWB also contends that such price reductions act to limit the LECs' pricing flexibility, and as a result, LECs might be unable to move prices towards efficient levels.[205] SWB maintains that the initial 1 percent CPD and 1 percent reduction in price cap indexes provide adequate consumer benefits during the early years of USTA's plan, while the X-Factor adjustments are lagged.[206] BellSouth agrees that the initial CPD provides additional consumer benefits, but maintains that the Commission could not justify a one-time PCI reduction unless it was part of a voluntary regulatory system as USTA proposes.[207] SWB contends that TFP is the only reasonable method of establishing an X-Factor, and alleges that AT&T, Ad Hoc, and USTA agree that TFP is the only way to measure productivity.[208] AT&T states that it disagrees with USTA's TFP methodology.[209]

122. A number of commenters maintain that the X-Factor should be almost double that of USTA's estimate."[210] Several parties assert that USTA's study does not treat input prices correctly because it fails to reflect the difference between growth in LEC actual input prices with growth input prices in the economy as a whole.[211] MCI and API argue that the productivity

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[204] SWB January 18 Comments at 8.

[205] SWB January 18 Comments at 13.

[206] SWB January 18 Comments at 5-6.

[207] BellSouth January 18 Comments at 8-10.

[208] SWB January 18 Comments at 8-9.

[209] AT&T January 18 Comments at 6.

[210] Ad Hoc January 18 Comments at 8; API January 18 Comments at 2-3; GSA January 18 Comments at 3; MCI January 18 Comments at 8-9; AT&T January 18 Comments at 4. AT&T also asserts that much of the data in the Christensen Study predate the adoption of LEC price cap regulation, and so is not relevant to LEC performance under price caps. AT&T January 18 Reply at 4-5.

[211] Ad Hoc January 18 Comments at 6-7; GSA January 18 Comments at 2-4; MCI January 18 Comments at 7-8; AT&T January 18 Comments at 3-4. Arguments for and against adjustment of TFP studies for LEC input price differentials are summarized in more detail in Section IV.B.2.a.ii. of this Order, above.

offset in USTA's proposal is too low to stimulate significant productivity growth or efficiency gains, more efficient pricing, or infrastructure improvements.[212] CFA and ICA note that British regulators currently apply an 8 percent X-Factor to British Telecom.[213]

123. AT&T and MCI criticize USTA for using LEC total company data rather than LEC interstate access data.[214] USTA answers that there is no non-arbitrary method of separating interstate access TFP from total company TFP.[215] AT&T also contends that the one-time 1 percent index reduction would be a relatively insignificant reduction.[216] Bell Atlantic suggests that any greater reduction would exceed the price changes that would result from an "appropriate" productivity formula.[217]

124. AT&T maintains that the two-year lag and moving average only delay reflecting productivity improvements in the price cap formula."* MCI argues that an annual review of LEC productivity, necessary to develop the moving average, will increase administrative burdens.[219] Ad Hoc contends that a moving average X-Factor based on LEC data encourages excessive network investment, and may lead to "gold-plating" incentives similar to those created by rate-of-return regulation.[220] Therefore, Ad Hoc recommends including other telecommunications service providers in the TFP calculation if the Commission were to adopt USTA's proposal in some form.[221]

125. MCI contends that the Commission should reject USTA's proposal because the Commission has already considered and

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212 MCI January 18 Comments at 2-4, 6; API January 18 Comments at 3. See also CFA-ICA January 18 Reply at l-2.

213 CFA-ICA January 18 Reply at 2-3.

214 AT&T January 18 Comments at 5; MCI January 18 Comments at 8.

215 USTA January 18 Reply at 4.

216 AT&T January 18 Comments at 8-9.

217 Bell Atlantic January 18 Comments at 6.

218 AT&T January 18 Comments at 7.

219 MCI January 18 Comments at 4-5.

220 Ad Hoc January 18 Comments at 15-17.

211 Ad Hoc January 18 Comments at 17-18.

rejected developing an X-Factor based on TFP in the LEC Price Car, Order.[222] AT&T argues that USTA's revenue weighting of common line costs is inconsistent with the "balanced 50-50" formula of the LEC price cap plan, and that this also tends to understate productivity and the X-Factor." AT&T also asserts that USTA's proposal is based on a different depreciation methodology than that approved by the Commission."[223] USTA responds that the 50-50 formula would have resulted in a lower productivity measure."[224] USTA also maintains that the prescribed depreciation rates do not measure the decline in the efficiency of assets.[225]

126. AT&T contends that it would be difficult to implement USTA's proposal, because the data necessary to measure TFP are not collected in ARMIS or other readily available sources.[226] AT&T also asserts that the Bureau of Labor Statistics (BLS) has revised the way it measures U.S. economy TFP, and that this might result in inconsistencies between BLS results and the Commission's results for LEC TFP.[227] AT&T also maintains that there are often substantial delays in the release of BLS TFP data.[228] Ad Hoc asserts that USTA's calculations are inaccurate, and that a TFP calculation is not as simple or routine as USTA suggests.[229]

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[222] MCI January 18 Comments at 5, citing LEC Price Car, Order, 5 FCC Rcd at 6796.

[223] AT&T January 18 Comments at 4.

[224] AT&T January 18 Comments at 5.

[225] USTA January 18 Reply at 4.

[226] USTA January 18 Reply at 4.

[227] AT&T January 18 Comments at 6; see also Ad Hoc January 18 Comments at 13-14 (data based on services provided off-tariff are not in ARMIS).

[228] AT&T January 18 Comments at 6-7.

[229] AT&T January 18 Comments at 7.

[230] Ad Hoc interprets USTA's TFP analysis as follows: If the difference between LEC and economy-wide input price growth decreases, then the difference between LEC TFP and economy-wide TFP should increase, and therefore there should be an increase in measured LEC productivity growth. Ad Hoc claims that USTA did not report this result in its January 18 Letter, and concludes from this that TFP calculations are not simple or routine. Ad Hoc January 18 Comments at 9-11. Similarly, Ad Hoc notes that, on January 16, 1995, USTA provided an update to the TFP study

c. The AT&T Direct Model of Productivity

127. AT&T presents its own model for setting the X-Factor, which it calls the Direct Model.[231] This model derives the level of productivity the LECs achieved under price caps from January 1991 through December 1993 using publicly filed LEC data in the Commission's ARMIS data base and in the Tariff Review Plans (TRPs) accompanying each annual access tariff. The Direct Model computes the X-Factor that would have produced exactly an 11.25 percent rate of return under price caps. AT&T states that the methodology is the same as followed by a LEC in computing its sharing obligations under price caps.[232]

128. According to AT&T, the Direct Model shows that LECs achieved an average X-Factor of 5.97 percent under price caps. AT&T recommends that the LECs' productivity factor be set at this level, less a 0.5 percent "productivity dividend" for exceeding the 3.3 percent goal, to encourage LECs to continue to perform efficiently.[233] AT&T maintains that increasing the productivity offset will not "recapture" any part of the $2.5 billion in additional revenues achieved thus far under price caps, but rather would operate solely prospectively to ensure that ratepayers receive at least the same level of benefits as under rate of return regulation.[234]

129. A number of LECs maintain that AT&T's study is inadequate because they examined only short-term earnings over a

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USTA provided in its Comments, to include 1993 data. Ad Hoc contends that, although LEC data for 1993 are available, BLS data are not yet available for 1993. Ad Hoc also maintains that USTA has not justified revising its pre-1993 data. Ad Hoc January 18 Comments at 10-13.

[231] AT&T Comments, Appendix B.

[232] If the Commission adopts AT&T's suggestion of a per line formula for the common line basket, then AT&T recommends setting the productivity factor at 4.63 percent. AT&T Comments at 23-24, 26. If the Commission imposes a one-time PCI reduction to reflect reductions in the cost of capital, as AT&T suggests, then AT&T maintains that the X-Factor should be reduced by an additional .55 percent. Id. at iv. AT&T's positions on the common line formula and the need for a one-time rate reduction are discussed in more detail infra.

[233] AT&T Comments at 23.

[234] AT&T Reply at 27 n.53.

three-year period rather than long-term productivity.[235] USTA claims that AT&T's productivity calculations are substantially overstated because they "appear to have been based on what AT&T assumed to be a single year's productivity gain."[236] USTA contends that AT&T provided insufficient data to validate its proposed LEC productivity factor and productivity dividend.[237] SWB and Pac Bell assert that AT&T's study overstates estimated productivity due to an arithmetic error and conceptual errors.[238] Several LECs also criticize AT&T's study because it considered only Bell Operating Companies rather than all price cap LECs.[239] Lincoln argues that RBOCs are not representative of all LECs, as AT&T asserts, because they have much larger service areas than most LECs.[240] In addition, Lincoln contends that it is misleading for AT&T to compare price cap earnings to a traditional rate of return to derive a productivity offset, because price cap regulation was designed to be "a departure from traditional rate of return regulation with price cap LECs assuming more risks for the possibility of more rewards."[241]

130. AT&T revised the data in its Direct Model in ex parte statements submitted on October 28 and November 29, 1994. In its October submission, AT&T added data from the second quarter of 1994.[242] In its November submission, AT&T expanded its study to include all Tier 1 price cap LECs.[243] After incorporating these revisions, AT&T concludes that the X-Factor which would have

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[235] USTA Reply at 59-60; Lincoln Reply at 8; GTE Reply at 23-25. See also USTA January 18 Reply at 2-3.

[236] USTA Reply at 60.

[237] USTA Reply at 59-60.

[238] SWB Reply at 39-40; Pac Bell Reply at 20-21.

[239] SWB Reply at 39-40; Lincoln Reply at 4-9; USTA Reply at 60 n.194.

[240] Lincoln Reply at 7.

[241] Lincoln Reply at 4-5. Similarly, some LECs contend that increasing the productivity offset in response to the increase in LEC earnings would constitute a return to rate-of-return regulation. Bell Atlantic Reply at 14-16; SWB Reply at 30-31; RTC Reply at 10.

[242] Letter from Richard N. Clark, AT&T, to William F. Caton, Acting Secretary, October 28, 1994 (AT&T October 28 Letter).

[243] Letter from Richard N. Clark, AT&T, to William F. Caton, Acting Secretary, November 29, 1994 (AT&T November 29 Letter).

produced an li.25 percent average rate of return from January 1991 to June 1994 is 5.54 percent. Thus, AT&T disagrees with commenters who argued that including only RBOCs in its original study resulted in a significantly overstated X-Factor.'&

131. In its reply to AT&T's comments on its January 18 ex parte statement, USTA asserts that AT&T overstates LEC earnings by assuming that all price cap LECs set their prices at the ceiling."' USTA claims that AT&T made several methodological errors which resulted in overstating LEC productivity gains under price cap regulation.[246] USTA also alleges that AT&T may have double-counted LEC exogenous cost reductions during the price cap period.[247] AT&T claims that it is necessary to use actual PCIs rather than APIs to determine what X-Factor would have yielded an 11.25 percent rate of return.[248] AT&T asserts that USTA's criticisms of its methodologies are either groundless or result in a higher X-Factor.[249] AT&T denies that its model double-counts exogenous costs.[250]

d. X-Factor Methodology Based on the Commission's Frentrup-Uretsky Study

132. In an ex parte statement filed on September 29, 1994, USTA purports to update the Frentrup-Uretsky Study with data from 1990, 1991, and 1992.[251] This ex parte statement is discussed in detail in an appendix to this Order. According to USTA, the result of this update is an X-Factor of 2.67 percent.[252]

133. AT&T also presents what it terms a Simple Model for estimating LEC productivity. The Simple Model adopts a method used by the Commission in the original LEC price cap proceeding,

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[244] Id.

[245] USTA January 18 Reply at 3.

[246] USTA January 18 Reply at 3-4.

[247] USTA January 18 Reply at 4.

[248] AT&T January 18 Reply at l-2.

[249] AT&T January 18 Reply at 2-3.

[250] AT&T January 18 Reply at 3.

[251] Letter from Linda Kent, USTA, to Acting Secretary, September 29, '1994 (USTA September 29 Ex Parte Statement).

[252] USTA September 29 Ex Parte Statement, Attachment 2 at 12-14.

which estimated that each 1 percent change in LEC rates of return translates into a 2.5 percent change in annual revenues (or costs). AT&T calculates that, over the period from January 1991 through December 1993, the RBOCs earned a composite average return of 12.89 percent, an increase of 1.64 percent over the initial 11.25 percent target rate of return. Based on this calculation, AT&T asserts that the RBOCs achieved an annual X-Factor of 6.96 percent.[253]

e. The 1984 Data Point Issue in the Commission's Frentrup-Uretsky Study

134. MCI recommends increasing the productivity factor from 3.3 percent to 5.9 percent.[254] MCI claims that the "outstanding" profits achieved by the LECs under price caps indicates that the 3.3 percent productivity factor is too low.[255] MCI contends that the Commission was too conservative in its determination of the productivity factor, and that it erred when it included the questionable 1984 tariff year data point in one of its two productivity studies, the Frentrup-Uretsky short-term study. MCI says that removing this data point would result in a productivity factor of 5.9 percent.[256]

135. USTA and some LECs maintain that the Commission should not reject the 1984 data point because MCI's reasoning on this issue has previously been rejected by the Commission.[257] USTA argues that the 1984 data point was not a statistical aberration and, even if the data point was unusual as compared to succeeding years, that does not mean that it was inaccurate or that it is of less value for purposes of measuring LEC productivity."* Lincoln faults MCI for failing to average its short-term LEC productivity results with any long-term study, as the Commission did previously. Lincoln argues that the use of a long-term study tempers the volatility of a short-term study and gives credence

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[253] AT&T Comments, Appendix C.

[254] MCI Comments at 18; id. at 23 (if the Commission adopts a per-line approach to the common line formula, it should increase the productivity offset to 5.5 percent).

[255] MCI Comments at 21-23.

[256] MCI Comments at 22.

[257] USTA Reply at 58; US West Reply at 25; Pac Bell Reply at 22-23; Bell Atlantic Reply at 14-16; GTE Reply at 26; Lincoln Reply at 6; SWB Reply at 41, citing LEC Price Cap Order, 5 FCC Rcd at 6801.

[258] USTA Reply at 58.

to the sustainability of the resulting productivity offset.[259]

136. SWB contends that MCI has overstated LEC profits under price cap regulation. SWB criticizes MCI for reflecting "extraordinary items" in the return on equity of the Bell Regional Holding Companies, without making that adjustment for AT&T's or MCI's return on equity. SWB claims that, if the proper adjustments were made, the return on equity for the Bell Regional Holding Companies would be 9.28 percent; for AT&T, 19.61 percent; and for MCI, 15.86 percent.[260] SWB argues that the LECs' higher earnings under price caps is evidence that the incentives worked, not that there is some problem with the regulation.[261] SWB asserts that the price cap LECs reduced their access rates by $7.5 billion over the past four years.[262] SWB denies that LEC earnings have been unreasonably high under price caps, and asserts that an increase in earnings does not necessarily imply a decrease in consumer benefits.[263]

f. Other Proposals and Arguments

137. GSA argues that, in light of AT&T's comprehensive study of the achieved productivity factor from 1991 to 1993, and the comments of other parties, the Commission should increase the productivity factor to 5.0 percent.[264] Some LECs raise the same arguments against GSA that they raised against AT&T's study; i.e., AT&T's study examined an unreasonably short period of time, and included only BOCs rather than all price cap LECs.[265]

138. Several other commenters also support raising the productivity factor.[266] ARI and PaOCA recommend adopting a

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[259] Lincoln Reply at 6-7.

[260] SWB January 18 Comments at 21.

[261] SWB January 18 Comments at 15-16.

[262] SWB January 18 Comments at 17, 20.

[263] SWB January 18 Comments at 18, 20.

[264] GSA Reply at 14.

[265] USTA Reply at 59-60; SWB Reply at 39-40. USTA claims that a productivity study should be based on at least 8 to 10 years of data, so that business cycle fluctuations do not have a disproportionate impact on results. USTA Reply at 51.

[266] ARI Comments at 2-3; PaOCA Comments at 6-7; WilTel Comments at 21, 24-25; OCCO Comments at 7; API Reply at 8; CCTA Reply at 2, 17; ICA Comments at 12.

productivity factor in the range of 5 to 6 percent to more accurately reflect the efficiency gains in the telephone industry. ARI and PaOCA note that a panel of three administrative law judges for the Pennsylvania Public Utility Commission proposed a 5.29 percent factor based on productivity growth in the telephone industry.[267] API says that the productivity factor should be increased to 5.9 percent.[268] ICA recommends raising the productivity factor to 5.8 percent, exclusive of any additional CPD.[269] Also, ICA suggests increasing the CPD to 0.75 percent at the start of the second plan, and raising it to 1 percent in two years.[270]

139. In an ex parte comment submitted in November 1994, CARE submitted its own plan. CARE alleges that the price cap LECs have profited at the expense of their customers, and that some of the price cap LECs have not invested their profits in the network.[271] CARE asserts that the LECs achieved a 5.7 percent level of productivity under price cap regulation, and recommends increasing the productivity factor to 5.7 percent, excluding the CPD.[272]

140. Sprint and RTC urge the Commission to retain the current productivity factor.[273] RTC, USTA, and CSE claim that changing the productivity offset would effectively recapture efficiency gains that the LECs achieved under price cap regulation and thereby eliminate the price cap plan's efficiency-generating incentives.[274] Sprint asserts that the 2.8 percent productivity factor should not be raised because future productivity gains may not meet those of the recent past.[275] Sprint, however, urges the Commission to raise the CPD to 1.7 percent, and to implement a 2 percent permanent price cap revenue reduction as a quid pro quo for eliminating the sharing

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267 ARI Comments at 2-3; PaOCA Comments at 6-7.

368 API Reply at 7.

269 ICA Reply at 3, 22-23.

270 ICA Comments at 12.

271 CARE November 1994 Ex Parte Submission at 4-5.

272 CARE November 1994 Ex Parte Submission at 11, 13.

273 Sprint Comments at 11-13; RTC Reply at 3, 8.

274 RTC Reply at 9; USTA Reply at 51-52; CSE Reply at 2-3.

275 Sprint Reply at 11-12, 14.

adjustment mechanism.[276] Sprint contends that the Commission should adjust the X-Factor only to counteract the effects of eliminating sharing, revising the common line formula, or making any one-time rate reinitialization.[277] Pac Bell contends that the LECs' productivity growth was only 1.7 percent higher than the economy as a whole from 1984 to 1992, and is likely to decrease as access competition grows. Pac Bell advocates eliminating the productivity factor, but maintains that in any case, the X-factor should be no higher than 1.7 percent.[278]

141. In ex parte proposals, Sprint proposes that the Commission adopt a 3.3, a 3.9, and a 4.5 percent productivity factor."' Under Sprint's proposal, a price cap LEC that selects and outperforms the 3.3 percent productivity factor would be required to share with its customers half of its earnings between 11.75 percent and 13.75 percent, and return to ratepayers all of its earnings in excess of 13.75 percent. A price cap LEC electing the 3.9 percent productivity factor would be required to share with its customers half of its earnings between 12.75 percent and 15.75 percent, and all of its earnings in excess of 15.75 percent. If the earnings of a LEC selecting the 3.3 percent or 3.9 percent productivity factors fall below 10.25 percent in one year, the LEC would be entitled to adjust its rates upward to target its earnings to 10.25 percent the following year. LECs selecting the 4.5 percent productivity factor would not be subject to either sharing obligations or a low-end adjustment mechanism. Price cap LECs would be allowed to elect a productivity factor on an annual basis. However, price cap LECs that elect the 4.5 percent productivity factor would not be allowed to choose a lower productivity factor."' LECs

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[276] Sprint Reply at i-ii, 4-5. See also US West Comments at 41-42 (opposing X-Factor reduction if such reduction results in retaining sharing requirements).

[277] Sprint Comments at 12-13.

[278] Pac Bell Comments at 28-34. Pac Bell also suggests that, if the productivity factor is retained in the price cap formula, then we should allow annual adjustments to the productivity factor, based on a "depreciation deficiency reserve" that is based on what Pac Bell considers to be "realistic economic lives" of LEC assets. Id. at 34.

[279] Sprint Feb. 2, 1995 Ex Parte Proposal; Sprint Feb. 15, 1995 Ex Parte Proposal (under Sprint's proposal, the 4.5 percent productivity factor would be composed of a 2.8 percent productivity offset and a 1.7 percent consumer productivity dividend).

[280] Sprint Feb. 2, 1995 Ex Parte Proposal.

choosing the 4.5 percent productivity factor would qualify for more streamlined regulation and greater pricing flexibility.[281]

142. USTA denies that higher LEC earnings warrant a higher productivity factor, asserting that earnings are based on accounting costs, not economic costs. USTA says that this difference can result in a substantial disparity between earnings and true productivity.'** Many LECs contend that, in any case, LEC earnings were reasonable in light of the increasing business and regulatory risks faced by the LECs.[283]

143. GTE and NYNEX, in response to ARI and PaOCA's comments, allege that the Commission has already determined that state proceedings should have no bearing on federal price cap plans because the plans differ and the productivity of one state cannot be assumed to apply to the nation as a whole.[284]

3. Analysis

144. In this Report and Order we take two actions regarding the X-Factor. First, we conclude that there is an insufficient record to choose a long-term methodology for computing the X-Factor. Thus, we direct the Common Carrier Bureau to draft a Further Notice of Proposed Rulemaking seeking further comment and analysis on development and implementation of such a methodology. Second, pending definitive resolution of this issue in the Further Notice, we set interim X-Factors for the 1995 annual access tariff filings. Those adjustments factors are set forth in Section IV.C., below.

145. We are persuaded that we must develop a new productivity factor to replace the X-Factor in the current price cap formula. Based on the record before us, however, we are able to decide only on the broadest features of the new X-Factor: it should be based on an industry-wide measure of performance, and it should incorporate productivity changes that have occurred since the institution of price cap regulation. We reach three

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[281] Sprint Dec. 29, 1995 Ex Parte Proposal. Specifically, LECs electing the 4.5 percent productivity factor would qualify for immediate implementation of zone density pricing. In addition, these price cap LECs would be allowed to move depreciation rates to economic levels, and to write down reserve deficiencies.

[282] USTA Reply at 49-51.

[283] USTA Reply at 50; Ameritech Reply at 5; BellSouth Reply at 21; Lincoln Reply at 4.

[284] GTE Reply at 27; NYNEX Reply at 34-35.

additional, tentative conclusions concerning the new X-Factor. First, we tentatively conclude that the X-Factor should not be fixed for a period of years, but should be recalculated routinely and automatically, as a moving average. Second, we prefer, if possible, to develop our new X-Factor using a TFP methodology and tentatively conclude that we should adopt this methodology. Third, we tentatively conclude that the long-term LEC price cap plan should have at least two options. We will explore these tentative conclusions and seek additional comment in the forthcoming Further Notice.

a. Use of an Industry-wide Measure of Performance

146. The current X-Factor embodies our original assessment of the extent to which the productivity of the LEC industry as a whole has, in the past, exceeded the productivity of the general economy. This use of an industry-wide average productivity factor is consistent with our goal of creating a price regulation plan that replicates the incentives provided by competition.[285] The LECs are, in effect, made to compete against the industry average. As in competitive markets, those that are more efficient and more innovative than average can achieve above-average profits, while those that lag the industry in performance will also lag in earnings. There is broad support in the record of this proceeding for continuing to determine the X-Factor based on some industry-wide measure of performance. No party, for example, suggests that we attempt to calculate individual X-Factors for each price cap LEC. Accordingly, we find that the productivity adjustment in the LEC price cap formula should continue to be based on an industry-wide measure of performance.

147. Parties do not agree, however, on what data should be included in the determination of an industry-wide average productivity factor for the LEC industry. USTA would include data from all LECs in its moving average TFP study.'*" AT&T claims that its Direct Model produces a valid LEC productivity offset using RBOC data only,[287] while other parties contend that the RBOCs are not a valid proxy for the entire LEC industry'** and that the omission of GTE data, in particular, unacceptably

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[285] See Section III.B. of this Order, supra.

[286] January 18 Letter, Attachment 1 at 1.

[287] AT&T Comments at 24. AT&T later expanded its study to include all price cap LECs, and claims that this has only minor effects on its results. AT&T October 28 Letter; AT&T November 29 Letter.

[288] Lincoln Reply at 7.

skews AT&T's results upward.[289] Ad Hoc argues that a moving average TFP study must include telecommunications providers other than LECs to avoid providing the LEC industry as a whole with perverse investment incentives similar to those created by rate of return regulation.[290] The ICC's railroad regulation, cited by USTA as an example of a five-year moving average with a two-year lag,[291] makes adjustments for average productivity improvements to an all-inclusive index of railroad input prices, rather than GNP-PI or GDP-PI.[292] We intend to seek additional comment on this issue in the Further Notice.

b. Incorporation of Productivity Chancres that have Occurred Under Price Cap Regulation

148. For the initial period of the LEC price cap program, we selected a productivity factor based on estimates of the historical performance of the industry under rate-of-return regulation. At the time, these were the best data available to us. We reasoned that allowing carriers to adjust their initial, rate of return-based rates for inflation, minus the historical productivity differential, would ensure that rates under price caps were no higher than they would have been under continued rate-of-return regulation, and would force carriers to become more efficient in order to earn more than they would have earned under rate-of-return regulation.

149. The largest LECs have now been under price cap regulation for four years. AT&T argues that we should recalculate the X-Factor based solely upon what it asserts is a measurement of the actual level of productivity increase achieved by the LECs under price caps. USTA's revised proposal for an optional moving average X-Factor would, after a few years, also produce an X-Factor based entirely on productivity performance under price caps. We perceive in these otherwise disparate proposals of AT&T and the LEC industry a developing consensus that LEC performance under price caps must, in the long-term, be reflected in a revised X-Factor.

c. Development of a Moving Average X-Factor

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289 SWB Reply at 39-40; USTA Reply at 60 n.194.

290 Ad Hoc January 18 Comments at 15-17.

291 January 18 Letter, Attachment 1 at 3.

292 See, e.g., Ex Parte No. 290 (Sub. No. 4), Railroad Cost Recovery Procedures, Productivity Adjustment, 5 ICC 2d 434, 437-38 (1989); Ex Parte No. 290 (Sub. No. 5), Quarterly Rail Cost Adjustment Factor (Decided Sept. 15, 1993).

150. The initial round of comments and replies on the X-Factor issue focused on setting a fixed X-Factor for a period of years, until the next comprehensive review. USTA's modified proposal calls for permitting LECs the option of setting the X-Factor in a substantially different manner, as an annually adjusted moving average.

151. The comments filed in response to the USTA proposal show significant support for the concept of a moving average X-Factor, and even those opposing the USTA proposal have not raised fundamental problems with the moving average concept. The LEC commenters strongly support use of a moving average. US West urges, for example, that a moving average sidesteps much of the protracted debate about how to set and revise the X-Factor, while eliminating distortions and disincentives inherent in rate-of-return regulation and providing incentives to increase efficiency.[293] BellSouth claims that the moving average ensures that consumers receive the benefit of the actual productivity improvement achieved by the LECs, while eliminating the need for frequent price cap productivity performance reviews or for a sharing mechanism.'%

152. Although AT&T and MCI strenuously object to the use of TFP for setting the X-Factor, as well as to most other aspects of USTA's revised proposal, they do not present any reasons for concluding that use of a moving average of LEC performance would not better serve the goals of LEC price caps than an X-Factor that was fixed for a period of years.[295] GSA expressly supports the concept of an annual moving average update of the X-Factor, but proposes that the moving average be based on the AT&T Direct Model, and not on USTA's TFP approach.[296] Ad Hoc, however,

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293 US West January 18 Comments at 3.

294 BellSouth January 18 Comments at 7-8.

295 AT&T claims that a five year moving average with a two-year lag would understate the productivity adjustment, because rising productivity characterizes LEC operations. AT&T January 18 Comments at 7. It is unclear, however, that this characterization is accurate or will be so in the future. Even if it is, a moving average could reflect this trend more promptly than waiting for the next performance review. AT&T's criticism would appear to question only the number of years to be averaged and the lag to be used in setting the moving average, not the merits of a moving average per se. MCI's only specific objection to use of a moving average is that an annual update would increase the Commission's administrative burdens. MCI January 18 Comments at 5.

296 GSA January 18 Comments at 3.

objects to the use of an annually recalculated LEC-specific TFP measure as circular and self-serving, arguing that it would give LECs the ability and the incentive to keep productivity measures low.[297]

153. We tentatively conclude that use of a moving average of LEC performance data to set the X-Factor could substantially improve the LEC price cap plan. We see several potential benefits in the use of a routinely updated X-Factor. First, a rate formula that incorporated changes in industry-wide productivity growth into the X-Factor automatically could eliminate the need for frequent performance reviews. Our experience in the instant docket demonstrates that a four-year review cycle requires parties to take positions and formulate proposals based on only two or three years worth of data; consumes large amounts of public and private resources; and creates extended periods of uncertainty for both LECs and their customers. Second, as discussed in more detail in Section IV.C, below, use of a moving average X-Factor could allow us to reduce or eliminate reliance on sharing as a means of ensuring that consumers receive the benefits of LEC productivity gains and that rates remain just and reasonable.[298]

154. The virtues we see in the moving average concept are not necessarily linked to a particular methodology for measuring productivity, such as TFP, or to any of the other specific features of the revised USTA proposal. We therefore reject the suggestions of parties that urge us to either accept or reject

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[297] Ad Hoc January 18 Comments at 15.

[298] We note that, in another context, we have recently rejected use of a moving average of Treasury Bond yields to measure changes in the cost of capital. Amendment of Parts 65 and 69 of the Commission's Rules to Reform the Interstate Rate of Return Represcription and Enforcement Process, Report and Order, CC Docket No. 92-133, FCC 95-134 (adopted Mar. 30, 1995)(ROR Reform Order), at para. 38 and n.102. That decision is not inconsistent with our tentative determination here that using a moving average to update the price cap X-Factor is superior to fixing the X-Factor for a period of years. The cost of capital is far more volatile than productivity. With respect to the cost of capital, we found that a moving average gives too much weight to past periods in a changing capital market and thus may be too slow to identify permanent cost of capital changes. Id. at para. 38. By contrast, productivity changes slowly, and averaging measurements of productivity over some period of years improves the predictive value of the X-Factor.

USTA's revised proposal in its totality.[299] Instead, we intend to seek further comment both on the concept of using a routinely updated X-Factor and on different methods of implementing that concept.

d. Total Factor Productivity versus the AT&T Direct Model

155. We come to merely a tentative conclusion that a TFP approach should be used in the future to compute the X-Factor in the LEC price cap rate formula, because the current state of the record suggests possible problems with the use of TFP, which cannot be readily resolved absent further information and analyses from interested parties. Therefore, in the Further Notice, we will also seek further comment on the AT&T Direct Model.

156. To calculate the annual adjustment to the PCI, the X-Factor is subtracted from the nationwide rate of inflation as measured by the GNP-PI. Thus, the X-factor is intended to capture differences in the rate of cost changes for LECs in comparison with the rate of cost changes in the economy as a whole. LEC costs of providing a unit of service depend on both the amounts of inputs required to produce that output (LEC productivity) and the costs of those inputs. Both of these sources of cost change are appropriately considered in setting the X-Factor.

157. Consider first productivity changes. The LECs historically have achieved higher productivity growth than other sectors of the economy. All parties agree that this differential is not accounted for by the GNP-PI and must thus be reflected in the X-factor. Because TFP studies actually measure productivity growth rates, a TFP approach would appear to be ideally suited to determining the X-Factor. In the past, we have had to reject particular TFP indexes and studies because they were not sufficiently specific to the telephone industry, or because they were based on non-public data and thus could not be replicated or

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[299] Parties on either side of the debate claim with some passion that the USTA proposal should be either accepted immediately or rejected in toto. Compare SWB January 18 Comments at 4 n.5 ("SWBT is vehemently opposed to piecemeal consideration of the components of the proposal") with AT&T January 18 Comments at 1-2 ("USTA's additional proposals to eliminate the sharing mechanism and the consumer productivity dividend ("CPD") are so antithetical to the legitimate interests of access ratepayers as to warrant summary rejection by the Commission."). We expect that an objective analysis of the proposal both as a whole and its specific features is most likely to lead to an optimal plan.

verified.[300] Now, USTA's TFP proposal, which is specific to the price cap LECs and uses publicly available data, has persuaded us to renew our consideration of the TFP methodology.

158. USTA and the LECs claim that USTA's TFP approach would closely emulate the dynamics of a competitive market; could be generated and verified quickly, easily, and mechanically; and would ultimately cause 100 percent of the industry average TFP growth to be passed through to customers via relative reductions in the LEC price caps.[301] Other commenters contend that USTA's TFP differential dramatically understates the X-Factor because it fails to adjust for differences in input prices that the LECs experience as compared to firms generally in the economy,[302] fails to measure output in the same manner as the price cap formula,[303] uses a depreciation methodology that is significantly different from that approved by the Commission,[304] and incorrectly uses total company rather than interstate access service data.[305] Commenters also question whether use of TFP would be simple and mechanical, and whether Bureau of Labor Statistics data necessary to compute the TFP differential are in fact available on a timely basis.[306] These concerns have been highlighted by USTA's significant revision to critical data at a point late in this proceeding.[307]

159. The USTA Study is based on total (interstate and intrastate) company data. Some parties have argued that, if the Commission were to adopt a TFP approach, it should calculate TFP on an interstate basis.[308] No party has argued that the

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[300] See Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 87-313, 3 FCC Rcd 3195, 3406-07 (1988) (AT&T Price Cap Further Notice).

[301] Januarv 18 Letter, Attachment 1 at 1-3.

[302] E.g., Ad Hoc January 18 Comments at 7.

[303] AT&T Reply, Appendix B at B-7 to B-8.

[304] Id. at 29-30.

[305] Id. at 30.

[306] Ad Hoc January 18 Comments at 12; AT&T January 18 Comments at 7.

[307] See Letter from Mary McDermott, USTA, to Acting Secretary, January 20, 1995 (USTA Januaw 20 Data Submission).

[308] AT&T January 18 Comments at 5; MCI January 18 Comments at 8.

production functions (the technological relationship between inputs and outputs) significantly differ for intrastate and interstate services in ways that can be readily measured or separated. Indeed, intrastate and interstate services are largely provided over common facilities.'@ We therefore tentatively conclude that TFP should be calculated on a total-company, rather than interstate, basis. To the extent that parties can establish in the further notice that inclusion of intrastate performance data introduces a systematic downward bias in TFP, we believe it preferable to address such a problem directly, rather than attempting to construct an interstate factor based on regulatory accounting and other regulatory requirements that may not fully reflect economic costs.

160. A second fact to consider in setting the X-Factor is that LECs purchase goods and services whose costs **may** also be changing relative to the economy as a whole. If the trend in LEC input costs is consistent with the performance of the national economy as a whole, that trend should be reflected in the GNP-PI factor used to adjust PCIs annually. But, if the inflation factor does not accurately reflect changes in the carrier's input costs, an X-Factor based on productivity changes alone will not capture the full extent of the differences between changes in LEC unit costs and the economy-wide inflation adjustment.

161. On the basis of the current record, we tentatively conclude that it is appropriate to incorporate an input price differential into a TFP-based X-Factor. The record is not, however, sufficiently developed to allow us to choose a specific methodology. Ad Hoc argues that we should use the average input price differential between price cap LECs and the economy as a whole over the period from 1984 to 1992. Ad Hoc does not, however, justify this differential as a reliable predictor of future price differentials. Indeed, USTA argues that future differentials can be expected to run in the opposite direction. The further notice in this proceeding will seek comment on this issue.

162. We find that, for the most part, further comment is required to explore the issues raised by the parties concerning the TFP proposal. We are particularly concerned by claims that

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309 AT&T suggests that Dr. Christensen has presented evidence before state Public Service Commissions that the volume of interstate traffic overall is growing at a more rapid pace than is intrastate traffic, and therefore that interstate productivity growth exceeds intrastate growth. AT&T January 18 Comments at 5 n.12. In light of the fact intrastate and interstate services share common facilities, the traffic growth differential alone does not establish that it is meaningful to distinguish two different measures of productivity.

adoption of a TFP-based X-Factor with a rolling average would present formidable implementation problems. If the X-Factor is to be revised annually on the basis of a rolling average, the methodology for computing the X-Factor should be straight-forward and the data used in the calculation should be readily available. We are concerned that use of a TFP-based X-Factor with a rolling average may require the Commission and interested parties to devote substantial resources annually to review the calculation of the X-Factor.

163. The AT&T Direct Model presents an alternative approach to setting the X-Factor. This model measures the X-Factor that the LECs have in fact achieved during the first years of price caps based on the LECs' interstate rates of return. AT&T's earnings calculations are based on the cost and revenue data the LECs file with the Commission. Apparent advantages of this model are that it uses readily-available ARMIS data, reflects performance in providing the interstate services subject to price caps, and includes input cost changes. Possible disadvantages, as raised by LECs in their comments,[310] include the fact that data reported under Commission accounting, separations, and other rules may not accurately track economic costs in the way that a more market-based system might. The Direct Model also might require adjustment for changes in capital costs, which are reflected in TFP, to avoid periodic review of this factor. Also, in the Direct Model, the departure of actual rate of return from a target rate of return is a critical factor in measuring productivity.

164. As another alternative, we could use the methodology we used in the Frentrup-Uretsky Study. Both USTA and AT&T used some variation of the Frentrup-Uretsky methodology to support their X-Factor arguments. As explained in detail in Appendix E to this Order, USTA made three errors, one of which was very significant, in its update of the Frentrup-Uretsky Study which tended to understate LEC productivity.[311] In our analysis of the Frentrup-Uretsky Study in Appendix D, we made some refinements to the methodology used in that study. As explained in Appendix E, in addition to USTA's three errors, USTA's update differs from our refined methodology in three ways. Nevertheless, our refined Frentrup-Uretsky approach, possibly with further refinements and without the methodological errors introduced by USTA, may constitute a reasonable basis for developing the X-Factor. Again, further comment and analysis are needed to determine whether this model or the AT&T Direct Model can be used to calculate a moving average X-Factor that accurately measures LEC productivity changes.

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[310] See, e.g., USTA January 18 Reply at 2.

[311] See Appendix E.

e. Number of X-Factor Options

165. The current price cap plan features two X-Factors, a required X-Factor of 3.3 and a higher, optional X-Factor of 4.3. Carriers that elect the higher X-Factor are permitted to keep a greater portion of their earnings before sharing than carriers using the lower X-Factor. Commenters in this proceeding have offered a wide range of proposals for creating X-Factor options. USTA's revised proposal would allow carriers to choose between remaining under the current formula and adopting the TFP-based moving average X-Factor approach; carriers electing the TFP approach would be relieved of sharing and would also forego the low-end adjustment. Sprint's ex parte proposal features three progressively higher X-Factors, the first two of which would be associated with sharing zones.[312] NYNEX's ex parte proposal for a four-option plan would tie the selection of the X-Factor to the development of competition.[313] AT&T's proposal, in contrast, does not appear to include provision for electing a higher X-Factor. We will consider all of these proposals in the Further Notice. We tentatively conclude, however, that in view of the heterogeneity of LEC performance under price caps, our plan in the future should have at least two choices. Indeed, in setting our interim plan, this heterogeneity, coupled with a corresponding need to provide the LECs with reasonable yet challenging productivity alternatives, supports the implementation of three options.

C. The Rate-of-Return Backstop Mechanisms

1. Background

166. In the original LEC price cap proceeding, we were concerned that the price cap formula might not prove to be perfectly accurate either for the LEC industry or for individual LECs or market conditions. For that reason, we retained features of rate-of-return regulation in the LEC price cap plan, in the form of two backstop mechanisms, the sharing and low-end adjustments.[314]

167. The higher-end sharing mechanism seeks to ensure that LECs and their customers share fairly the risks and rewards of future productivity gains. Under the sharing mechanism, LECs are permitted to select a productivity offset of either 3.3 percent

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[312] See Sprint Feb. 2, 1995 Ex Parte Proposal; Sprint Feb. 15, 1995 Ex Parte Proposal.

[313] NYNEX March 3 Ex Parte Proposal.

[314] LEC Price Cap Order, 5 FCC Rcd at 6801.